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Forensic Accounting and Integrated Financial Reporting of Banks using Hausman

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Abstract— *This study examined forensic accounting and integrated financial reporting of listed banks in Ghana. The study aimed to examine forensic accounting effects on the integrated financial reporting of the listed banks. Its specific objectives determined the impact Litigations, Claims, Fraud cases reported, Cost of forensic investigation and Non-performing loans* ***(LCFCN)*** *have on integrated financial reporting variables such as corporate social responsibility –* ***CSR****. Integrated financial reporting (IFR) is the dependent variable while forensic accounting (FA) is the independent variable. In line with these stated objectives, five research questions and five hypotheses were formulated and it adopted the ex-post facto research design. The population of study constitutes 24 listed banks in Ghana, only 8 listed banks was selected through a purposive sampling. The data for the study was purely secondary and sourced from related books of the banks via Central Banks bulletin (Ghana), African financials and banks reports for a period of 16years from 2004-2020. Moreover, data were analyzed using the descriptive statistics, the Shapiro -Wilk test for a diagnostic check for normality and a combination of the panel regression analysis with the Hausman test which aided appropriately specification whether the analysis should be done with a fixed effect or random effect model of which the fixed effect was used for the interpretation at (P 0.050 < 0.10). In nations analyzed, the results among others demonstrated that forensic accounting and integrated financial reporting were statistically significant at 1%, 5%, and 10% as claims is positive and have significant effect on CSR (β = 64687.53, P<0.10); Non-performing loans is statistically significant and had a negative effect on CSR (β = -2.934, P= 0.054 @ 0.10). The study hence concludes that the effective implementation of forensic accounting had a constructive and significant effect on the integrated financial reporting of listed banks in Ghana. The study recommends among others that the apex banks should mandate banks to incorporate forensic accounting when reassessing their employability skill set, report production, debt administration and management, and portray fairness virtue in their reporting system so as to attract more investment and positive public image.*

Keywords— ***Hausman test, fixed effect, random effect, Shapiro-Wilk, forensic accounting, integrated financial reporting.***

I. INTRODUCTION

Financial industry globally with prospect, aim at retaining the stakeholder's interest through the establishment of excellent corporate governance. The importance which remains paramount given the industry's role in mobilizing funds, the disbursement, awarding of credit facilities to the demanding sector, the paying and settlement system, as well as executing monetary policies (Nkama and John, 2016). This industry is an important part of any country's economy (CBN, 2003). As a result, enacting laws, regulations, and codes of conduct that will ensure excellent corporate governance through improved board performance in any country's financial institution is critical. A forensic accountant by profession carries out his duty of professionalism in fraudulent financial investigations and possess excellent expertise skills in scientific knowledge and law background which may be enable him/her to assist management in improving corporate governance practices in the industry thus assuring effective fraud prevention and suitable responsibility. As a result, the existence of a forensic accountant allows the management of any firm to carry out their original tasks meticulously and effectively, knowing that a professional is on hand to investigate and detect any wrongdoing in the event of any skepticism.

According to Zia (2010), investigative accounting is the professional application of accounting, finance, tax, auditing expertise and instruments to evaluate, research, enquire, test, and analyze issues in individual disputes (intra and inter), crimes and adjudication in order to uncover truthfulness of financial data from a professional stand. This concept emphasizes that the job of a forensic accountant in a company is crucial due to their extensive knowledge of the internal control system and the legislation (the material, statutory, customary, the confirmation and methodological laws), Other institutional prerequisites, investigative capability, and interpersonal abilities assist with questions regarding presumptions or suspicion of fraud, which may include cases, master assurances, and inquiry by a fitting authority, and a full investigation of presumed misrepresentation, falsification, abnormality or indecency, which may expedite disciplinary measures.

IIRC (2013), explained that IR encompasses integrated thinking that which the basis for integrated decision. Hence, these decisions are whole and guarantee that value is created within the stipulated period. Apparently, the steady need for set rules in guiding corporate reporting, the IIRC being a global actor as well as NGOs was set up to provide the framework. Integrated corporate reporting as formed in 2010 (IIRC, 2013) and its framework in hinged to providing detail reports concerning external environment that is capable of influencing firms' actions, the resources used as well their association as a whole (Lipunga, 2015).

The IR framework clamps on the set rules features such strategic focus and posterity, stakeholder mutuality, information link, materiality status, concise, reliable, complete, consistency and comparability (IIRC, 2015). These 7 set rules facilitate an integrated report discloses strategies. These set rules and elements ensure that the reporting links between financial and non-financial information forms the base for evaluating current operations and the future state of affairs.

Furthermore, Krzus (2011) explained that for stakeholders to benefit and have better understanding of the performance of the firm various activities there is need for monitoring and review, allows better decisions making process, allows deeper engagement with information and lowers the business reputational risk. Also, Eccles and Saltzman (2011) enumerated the benefits of IR as internal, external market and regulatory risk management. The internal benefit includes improve resource allocation as well as reduction in exposures, the external benefits relates to owners and public satisfaction while the risk management benefit reveals the opportunity it provides for the firm to participate setting standards of operation.

The financial reporting framework, according to Olakunori (2009), is a core accounting premise, rules and methodologies utilized on financial statements provided for a wide range of organizations. These organizations include publicly listed and privately owned enterprises, quasi organizations, and government. It has been obtained as he asserted that the main aim of financial disclosure is the need for acceptability and consistency in their framework. Numerous business corporations or entities that run with the goal of having a widely renowned network need financial statements; this is included in the yearly report for decision-making purpose. The books of original entry are helpful in detecting personal accounting transactions in financial reporting, and they, like the primary sources, are frequently scrutinized by qualified experts for valuation of the concern financial data and to make sure all economic activities are satisfactorily documented (Omolehinwa, 2000).

With the multiple corporate scandals of Enron, Parmalat, Ireland's Elan, Dutch Firm, Tyco International, Belgium's Learnout, Hauspie and WorldCom in the 1990s, the issue of corporate governance and ethical behavior became a core concern debate during the global liquidity crunch with relation to financial firms. OECD report published in 2004, these scandals together with the corporate sector's ostensibly poor performance in Africa, have edged the activation of forensic accounting.

Despite this, the number of cases of financial frauds ranging from management, bankruptcy, tax, securities and money laundering schemes has been on the increase. This fraudulent playout impedes crucial sustainable development in many nations and jeopardizes strong corporate governance and suitable business practices (Suleiman et al., 2018). In the African banking system, fraud typically occurs once because the victim is aware of the theft and prevents potential risk ahead; the victim of a cheat on the other hand, is typically uninformed of the misfortune, and thus the fraudster can repeatedly execute the misconducts. In that respect, falsification is just the same as repeating theft on a comparable tragedy by the same perpetrator. In the case of corporate extortion, there is just one victim, the association, and there are usually isolated instances of fraud that affect the industry. According to Ajagun and Agede (2017), these criminal acts are known be carried out by highly skilled syndicates using advanced methodologies, necessitating the use of equally skilled and versatile accountants to unleash the fraudulent charts.

According to Bill Gates (2001), the companies that employ digital tolls to re-invent the way they function will be the most successful in the coming decades. These businesses will make quick decisions, respond quickly, and have a direct beneficial impact on their customers. Technological migration will place institutions on a shock wave of change which will destroy conventional company practices. Many African financial institutions are dominated by tiny asset-based institutions that cannot compete effectively with their multinational counterparts. In keeping with what Bill Gates stated, the introduction of information technology has compelled a rapid transformation of African systems, resulting in a high level of competition among these institutions. The need to improve banking technology and institutional arrangements for transmission mechanisms and other operational areas of financial institutions is very important in assuring operational efficiency as an interesting necessity

The primary aim of this research is to ascertain the effect of forensic accounting on integrated financial reporting with aggregated specific objectives of investigating the effect these variables of Litigation, claims, Fraud cases reported, Cost of Forensic investigation and non-performing loans (***LCFCN***) has on corporate social responsibility (CSR).

1.1 Research Questions

Does Litigation, claims, Fraud cases reported, Cost of Forensic investigation and non-performing loans (***LCFCN***) have impact on corporate social responsibility (CSR)?

1.2 Research Hypotheses

H_0: LCFCN have no significant effect on the Co-operate Social Responsibility (CSR) of the Ghana banks

This research work will be of immense relevance to analysts, regulators, government, professional, students and international cum host communities in a bid to make prompt decision while considering various facets. The scope covers the financial institution in Ghana with specific selection to spread visibility within the 15-year period from 2005 – 2020.

II. LITERATURE REVIEW

The term "forensic" immediately conjures up images of popular television shows such as CSI, NCIS, and Law and Order, in which a crime is committed and detectives and investigators use various forensic techniques (fingerprints, DNA analysis, blood splatter analysis, tool mark identification, hair and fiber comparisons, etc.) to solve the crime in minutes. In contrast, the phrase accounting immediately conjures up images of debits and credits, financial statements, tax returns, and auditing.

"Forensic" as a Latin word "forum," which means "of, relating to, or associated with" the legal system or the court system. The widest definition of forensic science describes it as the application of scientific knowledge to legal problems. The field of forensic accounting combines a unique mix of scientific and quantitative accounting and auditing skills with investigative and legal procedures, judicial procedures, and digital forensics. Analysis of risk, quantitative techniques, and research are all included in the job description. Accountants who have obtained specific training to work as financial investigators and fraud specialists are forensic accountants.

According to Modugu and Anyaduba (2013), forensic science is related to crime solving. It is the application of science to resolve questions arising from criminal or civil litigation, and it has been introduced into the accounting domain in order to serve as a more reliable and evidential means of enhancing financial investigations and preventing or reducing financial impropriety in all of its manifestations. Forensic accounting is concerned with deterring, detecting, and investigating financial reporting fraud on a broad scale (Kristic, 2009).

In simpler words, the integration of accounting, auditing and investigative abilities creates the specialty known as Forensic Accounting. Accounting in a judicial setting financial inquiry, investigative accounting, and fraud examination are all terms that are used interchangeably.

2.1.1 Historical Base of Forensic Accounting

Forensic accounting also called investigative accounting or financial inquiry can be considered in Nigeria as a new discipline in accounting, having emerged in response to a clarion call to ensure the credibility of financial accounts in

the country. Forensic accounting as credited to Kutilya, who was the first ever economist to openly discuss the importance of Forensic inquiry since, vie the preaching of checks and balances, audit etc. In his classic disquisition 'Arthashastra' (Science of Material Wealth) as means of curbing the famous forty ways of embezzlement, also propounded by him. Closely, Emperor Akbar's trusted Scholar Birbal too had ingeniously tricked up his slaves to investigate into financial crimes that closely mirrors today's subject according to Joshi (2003). Peloubet (1946), according to Kasum (2009), was the first to coin the term "forensic accounting," but Crumbley and Apostolou (2007) assert that the term can be traced back to18th century court decision in which a Scottish professional issued a memo canvassing his expert capabilities in arbitration support in 1824", while Peloubet was the first to coin the phrase and publish the phrase "forensic accounting," according to Kasum (2009). Tommie and colleagues (2006), on the other hand observed that it is one of the oldest professions with roots dating back to the Egyptians. The king's "eyes and ears" was a individual who essentially functioned as expert for Pharaoh, keeping an eye on inventories of tangible and intangible ssets on his behalf. This individual must be dependable, reliable and capable of handling a position of power and authority.

Forensic Investigation Cost (FIC)

Internal auditor in collaboration with qualified auditors should be able to conduct an audit of a company in accordance with regulatory standards, which is one part of excellent accounting professionalism that should be possessed by both. professional fees for services rendered by professional are determined by this factor, as well as other factors such as professionalism and ethical considerations (Fachriyah, 2011).

In Agoes (2012), investigation cost is defined as "the amount of the charge as determined by a number of factors such as the risk associated with the assignment, complexity of services offered, quantum of expertise required to execute services at a proficiency level, the cost nature of the firm in question and other considerable factors." It is measured by the agreed fee paid to the professionals for the investigation exercise.

Litigation

Dispute resolution in Nigeria is based on English common law, according to Global Legal Insights (2013), and the legal system and manner of litigation in Nigeria are based on English common law as well. Nigeria, like other common law jurisdictions, has an adversarial system of adjudication, in which competing parties compete to obtain a decision that is most favourable to their position, and in which the Judge plays a non-inquisitorial role in the proceedings. Litigations are measured by the amount recorded or incurred in the lawsuit

Claims and Indemnification (CI)

Cite (2008) posits claims as making a request for money, for property or for enforcement of a legitimate right as provided by law or asking for money due, for property, for damages or for enforcement of a right. To make this more honorable it must be filled appropriately. Claims and indemnification are measured based on amount awarded on a verdict in the judicial system.

Fraud Cases Reported (FCR)

Silverstone and Sheetz (2007), on the other hand sees it as an action that occurs in a social setting and has serious impact on parties involved. Fraud, according to him, is an opportunistic sickness that manifests itself when greed meets the potential for deception. According to Pasco (2009), fraud is characterized by trickery, deceit, and false statements, and it may also include an omission or purposeful refusal to convey material facts that are relevant to the case. This is measured by the amount of fraud cases captured and reported.

Non-Performing Loans (NPL)

Bank loans and advances are short-term facilities. Mostly in commercial banks, the worth of loan pool rest on credit evaluation metrics carried out by the responsible officer. The credit expert's role is to make sure that loans granted have a decent qualitative composition. Such include high liquidity ratio, minimum risk and moderate maturity structure. These qualities are vital in guarantee repayment on facilities when the fall due (Akpan, 2013). The non-performing loan is measured in terms of aggregate facilities due and over due by 90 days (principal and interest) and means of recovering it, is bad and doubtful.

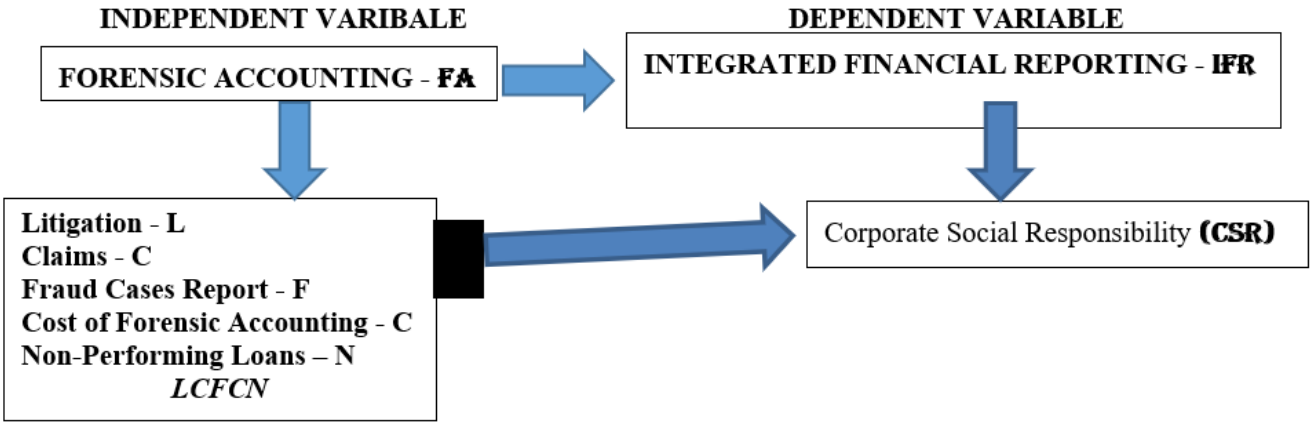
2.12 INTEGRATED FINANCIAL REPORTING (IFR)

Essentially, Integrated reporting is an aspect of a corporate reporting structure. By definition, it is the totality of reporting as the strategy, business rules, norms, operations and prospects of an entity with its outwards of influences towards adding and creating values (IIRC, 2015). Specifically, IR is set rules blended with sustainability reporting and financial information into a unique document (Lipunga, 2015).

Corporate Social Responsibility - CSR

Sheldon was the first to introduce the notion of Social Responsibility (SR) into the world in 1924. As a result, it has become a worldwide topic of significant debate and interest for a variety of groups as well as the general public and academic institutions. A more responsible, open, and long-term approach to operating organisations has arisen as

a result of the Social Responsibility (SR) movement (Lindfelt and Tornroos 2006, Marrewijk, 2003). There has been a huge expansion of this discipline, which now includes a large proliferation of ideas, techniques, and terminologies such as social issues management, sustainable development, stakeholder management, among others (Garriga and Mele, 2004). According to Carrol (1991), social responsibility (SR) encompasses all forms of social responsibility, including economic, legal, ethical, and philanthropic responsibilities. Summarily, it can be measured using the GRI index.



Conceptual Framework and Operationalization of Variables

2.2 Theoretically, this research work is anchored on the police man theory. The justification of the decision is that the rising rate in frauds, scandals and business interruptions as well as the need for fairness, accountability, and transparency in establishing good governance couple with synergies with the law enforcement agencies, this has positioned the specialists as the bloodhound who reviews accounting data sets in other to identify such criminal enterprise and transactions.

Policeman Theory

This theory was propounded by **Limperg Theodore** a Dutch Professor in the late 1920s. Until the 40s, this theory about auditing was the most widely accepted theory in the field. An auditor, according to this notion, is seen to work as a police officer by paying in depth attention not only on the figure on financial statements and accounts but to forestall the occurrence of misappropriation (Ittonen 2010). In current times, its explanatory values diminished as a result of the sharp shift in auditing theory, which limited auditors' responsibilities to giving credibility to that financial statements were true and fair at the time of the paradigm shift. As a result of the development of standards in auditing (ISA, 240; US SAS 99), which now require qualified professionals to exercise skepticism and demonstrate quantum expertise in understanding and mitigating errors, the policeman idea has once again gained favour (Zikmund, 2008). In the context of the investigation, the forensic investigator acts as a police officer or watchdog, investigating and uncovering illegal financial activities within the banking business, as well as revalidating the assurance or trust of the various stakeholder groups. This study is full anchored on this theory despite other supporting theories in the sense that it lays serious emphasis on the increasing need of the services been rendered by the forensic examiner and their supervisory ability to both the stakeholders and shareholders. lastly the activation of forensic accounting in any institution restores financial discipline among stakeholders.

2.3 Empirical Framework

Allison (2021) determined if introduction a forensic accounting to BGSU is appropriate. Based on the outcome, implementation of a well-structured design curriculum programme for tertiary institution is relevant for forensic accounting course at BGSU. Lastly, the course provides lots of benefits to the Students since they have interest in forensic accounting.

Dada and Jimoh (2020) understudy forensic accounting and financial crimes using the Nigerian public sector. The outcome revealed that litigation support service had significant but negative effect (reduction) on frauds in the said sector. Thus, recommend expert engagement in conducting litigation processes where he serves as an expert witness by assist the court in drawing conclusion on issues which may not ordinarily have the perquisites knowledge.

The influence of anti-fraud, forensic accounting measures and the financial reporting of Nigeria government parastatals was investigated by Nangih and Ofor (2020) in their research. Their findings revealed that anti-fraud and forensic accounting tactics has favorable and statistically significant impact on the financial reporting of government MDAs and parastatals at levels of 1% and 5% respectively. Along with the establishment of appropriate anti-fraud policies and strategies. The recommend forensic audit

section be established in all MDAs to audit past government records and produce forensic evidence when there is suspicion of fraud. This will help to improve the relevance, reliability, understandability, fairness, and comparability of government financial reports even further.

With the goal to fighting contemporary fraud surge in the public sector, Rabiu et'al (2018) undertook a study to evaluate the correlations between fraud rate and the aspects of FTT, which was published in the journal Fraud Triangle Theory. Findings show there is a statistically significant association between FTT and fraud rates in the public sectors (p-values 0.001 for pressure and opportunity, and 0.024 for rationalization). Relevance in the real world According to the conclusions of the study, fraud prevention activities can be improved by forensic accountants and anti-graft authorities in Nigeria through improving the existing control mechanisms in fraud prevention initiatives. At the conclusion of the investigation, recommendations are made to improve fraud awareness and training programmes for federal government personnel.

According to Bassey (2018), forensic accounting is important because it has an impact on the management of fraud in microfinance organizations in Cross River State. The results of the regression revealed that all variables have negative impacts, as predicted. Moreover, the study revealed that failures in audit over the course of several decades have precipitated a shift in accounting, leading to the conclusion that forensic accounting can play a significant role curbing malpractice and corrupt practices.

Mbah (2018) investigated forensic accounting and performance of Nigerian financial sector. The analysis showed that expert opinion had significant effect on the NPM, PAT, RE and EPS of banks. It was also observed that forensic audit influences profit after tax of Nigerian banks. The study also revealed that forensic audit has significant effect on retained earnings and dividend per share of Nigerian banks. With the findings, the researcher recommends that those at the helms of banks affairs should compel the use of forensic in making up their financial information as it will help in increasing the profitability.

In Olukowade and Balogun (2015), conducted a critical examination on the extent to which forensic accounting has an impact on fraud management in firms. The researchers found a statistically significant relationship between fraud management as a result of forensic accounting and the good institutional practices. In conclusion, management should be more proactive in their obligations, as stated in the organization's purpose statements, by publishing and implementing punishments against negligent personnel, disseminating fraud policies, and ensuring that fraud is kept to the barest minimum possible. This research found that firms with management-related problems should seek the assistance of forensic accountants because they are more independent and provide better services that prevent ill practice from taking place within the organization, among other things.

Clayton, et' al (2015) conducted an assessment of an overview of numerous dimensions of forensic accounting. According to the findings, the vast majority of forensic accounting work is performed outside of investigations in a wide variety of practice field across the board. In the event of intellectual property infringement, claims for lost product sales and profits may be made. Forensic accountants are frequently called upon to go beyond lost sales to uncover further losses relating to the consequences of price fluctuation, reduced economies of scale, and the presence of competition etc. Companies frequently use forensic accountants to assist them in the preparation of claims, the assessment of losses, and, in most cases, the refutation of the position of the insurance company's experts. Forensic accountants can help companies determine and assess their sustained loss, as well as give expert testimony services to help them defend their conclusions.

Mahua, Kiran, and Shalini (2013) are three women who have made significant contributions to the society. A forensic accounting approach to identifying white-collar criminals has become increasingly necessary in recent years, as law enforcement authorities with insufficient competence have failed to bring these perpetrators to justice. This is explored in detail in their paper. Furthermore, technology has advanced significantly, allowing fraudsters to become much more sophisticated in their use of it. On the other hand, our accountants have not kept pace with technological advancement, and despite having extensive knowledge in fraud detection, the majority of accountants are unable to decode technologically backed up frauds.

Sharma, (2020) conducted research to better understand the difficulties that banks confront in detecting fraud. It was obtained through a questionnaire filled out by 120 bank employees from four banks in the National Capital Region. According to the findings, the most significant obstacles that banks have in identifying fraud are a lack of consumer vigilance, a lack of customer reporting, and a lack of information exchange with other institutions and organizations. It was recommended that banks be serious in validating the reports filed by customers and report cases of frauds to the appropriate authorities as soon as they occur in order to address the obstacles, also internal and external audits must be completed on a timely basis at the branch level.

Sa'id, and Abas Azmi, (2020) examined the challenges in combating fraudulent practices: evidence from Nigerian public sector and found that among others that the prevalence of God fatherism in the Nigerian public sector. God fatherism truncates decisions, jeopardizes independence and party system structures, political immunity which reduces governance by an excluding punishment, protection rights and the political arena.

In the research of, Safiyanu et' al (2019) examined if the use and implementation of forensic accounting investigation in Nigeria had impact on the detection of financial crimes. The research centered on previously published articles on the subject and strategies used in its implementation. According to the findings of the study, forensic accounting services had substantial effect on the discovering of financial fraud. Findings have shown that expert investigations are significant and a positive step in the detection of misappropriations in the country. As a result, the paper recommends that professional accounting bodies such ICAN and ANAN encourage specialization in forensic accounting services among professional accountants currently in practice.

As a result of the insufficient of empirical assessment of factors that could impact the need of forensic accounting on integrated financial reporting of quoted Ghana banks in Africa countries in past research, there is a gap in the literature, particularly in developing nations that fall within sub-Saharan Africa. Insights from the studied empirical findings, there is a well establish gap based on the different views of the scholars. This could be due to differences in the variable metric, the study period, the number of control variables used or not, methods, data type used, and the tools used for analysis. This study filled in the gap by examining the effect of forensic accounting on integrated financial reporting of quoted Ghana banks, taking into account variables such as claims, non-performing loans, litigations, fraud cases reported, cost of forensic investigations, and corporate social responsibility that have not been extensively tested in other studies.

III. METHODOLOGY

This study used a secondary quantitative research design, which entails collecting quantitative data from pre-existing, reputable sources, such as the one from which the data for this work was gathered. The quantitative data used in this study is referred to as secondary data. It was gathered from the Bank of Ghana - Central Bank (https://www.bog.gov.gh/wp), ceicdata.com/en/ghana, and data.worldbank.org, **2004 – 2020.** Each bank's performance on the report was used to create a panel data set with a sample size of 170. Secondary quantitative research was utilized to assess the link between the study's two primary variables and to provide a helpful recommendation based on the findings. The data analysis method used in this paper is the descriptive statistics (mean and standard deviation will be used to summarize the data), panel regression analysis, which will include the Hausman test, a fixed effect or random effect regression model (depending on the result of the Hausman test), and Pearson correlation. In this study, the variables of interest are forensic accounting and integrated financial reporting. Litigation, Claims, Fraud cases reported, Cost of Forensic Accounting and non-performing loans are all forensic accounting indicators, whereas Integrated financial reporting (CSR) is the dependent variable. Stata 16.0 was used to analyze this paper.

Table 1: Variables Measurement

Variables	**Denote**	**Measurements (unit)**
Integrated Financial Reporting	IFR	Billion (Naira)
Litigation	L	Percentage (%)
Claim	CL	Percentage (%)
Fraud cases Reported	FCR	Percentage (%)
Cost of Forensic Investigation	CFR	Million (Naira)
Non-Performing Loans	NPL	Percentage (%)

Table 2: List of the selected Quoted Banks through purposive sampling for this study

No	Selected Quoted Banks in Nigeria
1	Zenith Bank
2	GTCO
3	Standard Chartered
4	Ecobank Nigeria
5	United Bank for Africa
6	Fidelity Bank
7	Barclays
8	Access
9	STANBIC IBTC

Source: Author

This study will adopt the model of Mbah, Paulinus (2019). The justification for adopting the model is that both studies

share similar variables, hence, making it suitable for adaptation and modification. See below as stated:

$FAUD = \beta_o + \beta 1NPM_{t-1i} + \beta 2PAT_{t-1i} + \beta 3RE_{t-1i} + ut\ldots$

Modified as:

$IFR_{it} = \beta_0 + \beta_1 Lit_{it-1} + \beta_2 Cl_{it} + \beta_3 FCR_{it} + \beta_4 CIF_{it} + \beta_5 NPL_{it} + \varepsilon_{it}$

Where, β = coefficient of the variables, i = ith bank, t = period under review, e= error term

$CSR_{it} = \beta_0 + \beta_1 Lit_{it-1} + \beta_2 Cl_{it} + \beta_3 FCR_{it} + \beta_4 CFI_{it} + \beta_5 NPL_{it} + \varepsilon_{it}$

Global rule: Reject the null hypothesis if **P< α** and do not reject if otherwise. Where α is the significant level (1%, 5%, 10% respectively)

IV. RESULTS AND FINDINGS

4.1 DESCRIPTIVE STATISTICS

Variable	Obs	Mean	Std. Dev.	Min	Max
Litigation	136	24.04053	5.813441	12	33.6558
Claims	136	14.35082	.2755516	13.8788	14.8228
Fraudcases~d	136	21005.75	11249.81	1774	40277
CostofFore~l	136	476.0675	246.0773	54.53	897.605
nonperform~s	136	33.00725	11.92001	7.678	53.3844
CustomerBase	136	62.71324	11.67771	28	80
PAT	136	66.69118	12.42668	31	85
Debttoequity	136	19.24265	4.834285	5	25
Currentratio	136	23.45588	5.242091	8	30
CSR	136	71.27206	12.67396	37	90

The total observation for all variables is 136 with litigation (M=24.04, SD=5.81) implies that on the average Litigation in Ghana banks represent about 24.04% with variability of about 5.81%, min of 12% and Max of 37% approximately. Claims (M=14.35, SD=0.28) means that on the average claims in Ghana Banks represent about 14.35% with variability of about 0.28%, min of 14% and max of 15%. Fraud cases (M=21005.75, SD=11249.81) tells us that on the average, number of fraud cases reported in Ghana banks is about 21005.75 with variability of about 11249.81. Cost of forensic investigation (M=476.07, SD=246.08) means that on the average cost of forensic in Ghana banks represent about 476.07 million GHc with variability of about 246.08 million GHc. Non-performing loan (M=33.01, SD=11.92) means that on the average non-performing loans in Ghana banks represent about 33.01% with variability of about 11.92%. Customer Base (M=62.71, SD=11.68) implies that on the average customer base in Ghana banks represent about 62.71% with variability of about 11.68%. PAT (M=66.69, SD=12.43) means that on the average, profit after tax in Ghana Banks represent about 66.69% with variability of about 12.43%. Debt to equity (M=19.24, SD=4.83) means that on the average, debt to equity in Ghana banks represent about 19.24% with variability of about 4.83%. Current ratio (M=23.46, SD=5.24) means that on the average, current ratio in Ghana banks under study represent about 23.46% with variability of about 5.24%. CSR (M=71.27, SD=12.67) implies that on the average participation of Ghana banks in corporate social responsibility represent about 71.27% with variability of about 12.67%.

4.2 Normality Test

Shapiro-Wilk W test for 3-parameter lognormal data

Variable	Obs	W	V	z	Prob>z
CustomerBase	136	0.96804	3.420	-1.133	0.87137
PAT	136	0.96699	3.533	-1.161	0.87709
Debttoequity	136	0.92688	7.825	0.520	0.30160
Currentratio	136	0.93268	7.204	0.234	0.40766
CSR	136	0.95219	5.116	-1.128	0.87039

We can see from the output of normality test in the using Shapiro-Wilk test for normality shows that P>0.05 for the response variables of Ghana banks under study which means we do not reject the null hypothesis and we conclude that the data is normally distributed.

4.3 Analysis of Data

CSR	**FE P < 0.05**	Hausman P 0.050 < 10%
CLAIMS	**β = 64687.53, P 0.052 < 0.10**	
NON-PERFORMING LOANS	**β = -2.93, P 0.054 < 0.10**	

Authors extract.

H_{05}: LCFCN have no significant effect on the Co-operate Social Responsibility (CSR).

H_{05a}: Litigation, Claims and Non-performing loans has no significant impact on corporate social responsibility.

For Ghana banks, the fixed effect model was specified for CSR (P 0.050 < 0.10). Besides, Claims (β = 64687.53, P<0.10) as we can see in the appendix part 1 means that we reject the null hypothesis at 10% level and conclude that claims are statistically significant and has a positive effect on corporate social responsibility for the reviewed banks. This implies that for every one unit increase in claims there is a 64687.53 increase on the CSR.

In the same vein, the non-performing loans (β = -2.93, P<0.10) as seen in appendix part 1 means that we reject the null hypothesis and conclude that Non-performing loans has statistically significant but has a negative effect on corporate social responsibility for the he reviewed banks.

V. SUMMARY OF FINDINGS

Based on the above analysis, we can summarize the key findings as follows: forensic accounting and integrated financial reporting have a significant relationship in Ghana. This suggests that, despite the costs, forensic accounting is a very appropriate approach to be considered in order to have good integrated financial reporting for Ghana, which agrees with the literature as forensic accounting alternatively called investigative accounting or financial inquiry, can be said to be a new field in accounting in Ghana spring up based on essence to ensure all round quality reporting.

Furthermore, Ghana banks reveal that two forensic accounting variables, claims and non-performing loans, have an effect on one of the corporate social responsibility, with claims having a positive impact and non-performing loans having a negative significant impact on corporate social responsibility.

5.1. Recommendations

Based on the above findings the study recommends amongst other;

1. To prevent and detect fraud, all banks must have appropriate and independent forensic accounting, as well as good financial reporting.
2. The central bank of Nigeria and Bank of Ghana - Central bank should as a matter of urgency recommend forensic accounting in order to have unbiased integrated financial reporting.
3. Banks in Ghana have a massive non-performing loan profile, which has a detrimental effect on their performance. To achieve proper debt administration, forensic accounting should be used always.

5.2 Contribution to Knowledge

Our study contributes by extending the frontiers of knowledge in understanding forensic accounting impact on IFR to Ghana banks. It is the first ever novelty to consider Ghana with veritable variables such as Non-performing loans, Claims and indemnity, fraud cases reported, and CSR which is an evolving trend. However, these variables had different substantial and significant impacts. It integrated the policeman among others as been paramount for ensuring safeguard of quality reporting and the methodological approach of adopting, modifying a model and analyzing data with a sophisticated combination tool i.e. Panel regression and Hausman in specifying appropriate estimator that alone makes it unique and gives it a better precision. See

$$IFR_{IT} = \beta_0 + \beta_1 L_{it-1} + \beta_2 C_{it} + \beta_3 FCR_{it} + \beta_4 CFI_{it} + B_5 NPL_{it} + \varepsilon_{it}$$

$$CSR_{IT} = \beta_0 + \beta_1 L_{it-1} + \beta_2 C_{it} + \beta_3 FCR_{it} + \beta_4 CFI_{it} + B_5 NPL_{it} + \varepsilon_{it}$$

5.3 Suggestion for Further Research

Based on our findings, the researcher suggests that the study of forensic accounting and integrated financial reporting of selected banks Ghana should be extended to other countries and sectors of such as Agric, Servicing, Manufacturing, Pensions, Health, Taxation, the oil and Gas sector, among others to see if same result will be achieved.

REFERENCES

[1] Allison, M. (2021). "Forensic Accounting at BGSU: A Proposal" (2021). *Honors Projects*. 609. https://scholarworks.bgsu.edu/honorsprojects/609

[2] ACFE (2008). 2008 report to the nation on occupational fraud and abuse.*www.acfe.com*

[3] ACFE (2016). Report to the Nations on Occupational Fraud and Abuse. *ACFE Magazine*.

[4] Adedire, T. O. (2016). Relationship between Forensic Accountants' Competences and Audit Expectation Gap: Evidence from Nigeria Money Deposit Banks. *Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya*

[5] Ahmadu, B.U., Zayyad, A.B & Rasak, A.I. (2013). An empirical examination of the role of forensic audit in enhancing financial investigations in Nigeria. *ICAN Journal of Accounting and Finance, 2(1), 145-159.*

[6] Balogna, G. J. & Robert, J. L. (1995). Fraud Auditing and Forensic Accounting: New tool and Techniques. *New York: John Wiley and Sons*.

[7] Bhasin Madan, (2007). "Forensic Accounting: A New Paradigm for Niche Consulting", *Journal of Chartered Accountant. PP 1000-1010.*

[8] Bhasin, M. L. (2007). Forensic accounting and auditing: perspective and prospects. *Accounting world magazine, http://www.iupindia.in/107/AW_Forensic_Accounting_Auditing_ 40.html*

[9] Bill G. (2001). Information technology: Challenges and Opportunities for Business Managers. In Ochejele (2003) *The Nigerian Financial Markets and the challenges of the Twenty First century.*

[10] Dada, S. O., Enyi, P. E., & Owolabi, S. A. (2020). Forensic accounting: A relevant tool for effective investigation of bribery cases in Nigeria: *Unique Journal of Business Management Research 1(5), 095-099, Available online @http://www.uniqueresearch journals.org/UJBMR ©2013 Unique Research Journals.*

[11] Dada S.O. & Jimoh F.B (2020). Forensic Accounting and financial crimes in the Nigerian public sector. Journal of Accounting and Taxation 12(4), 118-125

[12] Eccles, R. G., & Saltzman, D. (2011). Achieving sustainability through integrated reporting. *Standford Social Innovation Review, 1(1), 56–6*

[13] Financial Reporting Council, (2013). What Do We Mean by the Term 'Financial Reporting', Especially in Relation to Integrated Reporting? *Financial Reporting Council: Australia.*

[14] Hashem, H., Saeed, H., & Dawod, I. (2018). Efficiency of Forensic Accounting Techniques in Combating Administrative and Financial Corruption-An Exploratory Study. *The Journal of Administration & Economics, (117), 257-271. Retrieved from https://www.iasj.net/iasj?func=fulltext&aId=154777*

[15] Kristic, J (2009). The role of forensic accountants in detecting frauds in financial statements: Facta Universitatis*; Economic and Organization, 6(3), 295-302.*

[16] Kuchta, K. J. (2001). Your Computer Forensic Toolkit. *Information Systems Security.*

[17] Lamoreaux, M. (2007). Internal Auditor Used Computer Tool to Detect WorldCom Fraud. *Journal of Accountancy, 35*

[18] Modugu, K. P. & Anyaduba, J. O. (2013). Forensic accounting and financial fraud in Nigeria: An empirical approach. *International Journal of Business and Social Science, 4(7): 281-289.*

[19] Nangih, E & Ofor, T. (2020). Achieving quality financial reporting by governments in Nigeria: a rethink of anti-fraud and forensic accounting strategies. *Advanced Journal of Economics Business and Accounting.*1 (1)

Appendix

	Coefficients			
	(b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
Litigation	-.3769666	-.3931256	.0161591	.
Claims	64687.53	-6.167134	64693.69	33013.07
Fraudcases~d	-.2582225	-.2517658	-.0064566	.
CostofFore~l	-60.41847	11.6602	-72.07867	36.75423
nonperform~s	-2.933975	-2.826263	-.1077114	.

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(1) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 3.84
Prob>chi2 = 0.0500

Random-effects GLS regression — Number of obs = 136
Group variable: Banks — Number of groups = 8

R-sq:
within = 0.0258
between = 0.1498
overall = 0.0348

Obs per group:
min = 17
avg = 17.0
max = 17

Wald chi2(5) = 797.11
corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0.0000

CSR	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Litigation	-.3931256	.6659981	-0.59	0.555	-1.698458	.9122066
Claims	-6.167134	9.317222	-0.66	0.508	-24.42855	12.09429
Fraudcasesreported	-.2517658	.1816439	-1.39	0.166	-.6077813	.1042497
CostofForensicAccountingMill	11.6602	8.358658	1.39	0.163	-4.722465	28.04287
nonperformingloans	-2.826263	1.540562	-1.83	0.067	-5.845709	.1931823
_cons	0	(omitted)				
sigma_u	6.4568108					
sigma_e	11.141305					
rho	.25142105	(fraction of variance due to u_i)				

```
. xtreg CSR Litigation Claims Fraudcasesreported CostofForensicAccountingMill nonperformingloans, fe

Fixed-effects (within) regression               Number of obs      =       136
Group variable: Banks                           Number of groups   =         8

R-sq:                                           Obs per group:
     within  = 0.0878                                         min =        17
     between = 0.1403                                         avg =      17.0
     overall = 0.0142                                         max =        17

                                                F(5,123)           =      2.37
corr(u_i, Xb)  = -0.9291                        Prob > F           =    0.0433
```

CSR	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Litigation	-.3769666	.6520814	-0.58	0.564	-1.667722	.9137886
Claims	64687.53	33013.07	1.96	0.052	-659.8306	130034.9
Fraudcasesreported	-.2582225	.177701	-1.45	0.149	-.6099707	.0935258
CostofForensicAccountingMill	-60.41847	37.69272	-1.60	0.112	-135.0289	14.19195
nonperformingloans	-2.933975	1.507913	-1.95	0.054	-5.918797	.0508471
_cons	-893954.2	456167.2	-1.96	0.052	-1796909	9000.868
sigma_u	19.38058					
sigma_e	11.141305					
rho	.75161128	(fraction of variance due to u_i)				

PART 3: DO FILES

tsset Banks Year, yearly

xtreg CSR Litigation Claims Fraud cases reported Cost of Forensic Accounting Bill nonperforming loans, fe

estimates store fixed

xtreg CSR Litigation Claims Fraud cases reported Cost of Forensic Accounting Bill nonperforming loans, re

estimates store random

hausman fixed random